

ABSTRACT

A cement kiln chlorine/sulfur bypass system wherein the equipment cost is suppressed and the sulfur included in a combustion gas bled from a cement kiln is separated and effectively utilized. The cement kiln chlorine/sulfur bypass system comprises an air bleed means for bleeding a kiln exhaust gas passage, which runs from the end of the cement kiln to a bottom cyclone, of a part of the combustion gas, a separating means for separating dust in the gas bled by the air bleed means into coarse particles and fine particles, and a wet dust collector for collecting dust from the gas containing the fine particles separated by the separating means. The separating means is preferably a classifier in which the cut size is changeable. The wet dust collector is preferably a mixing scrubber. The mixing scrubber preferably comprises a circulating liquid tank to which dust slurry collected by the mixing scrubber is supplied and a circulating system by which a part of the dust slurry in the circulating liquid tank is returned to the mixing scrubber.